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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,610	09/09/2006	Coenraad Jan Spaans	APV31900	1373
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STEVENS DAVIS MILLER & MOSHER, LLP			EXAMINER	
1615 L STREET, NW			FREEMAN, JOHN D	
SUITE 850				
WASHINGTON, DC 20036			ART UNIT	PAPER NUMBER
			4174	
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			10/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/550,610		SPAANS ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	John Freeman		4174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/23/05</u> .   | 6) <input type="checkbox"/> Other: ____                           |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because Fig. 1 has parts labeled that contradict the description given in the specification (p11 ln15-20). In the description **3** denotes the inner layer, while **5** denotes an outer layer. In Fig. 1, however, **3** clearly is not adhering to the substrate **2**, and **5** would not need non-tacking properties to not stick to tool **6**.
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Under the 'and' portion of the 'and/or' phrase in claim 1, the barrier layer comprises PET, PBT and combinations thereof. The combinations would include the mixture of PET and PBT in claim 3.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 11-13, 15 and 16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 13, 17, 18, 20, 21, 23 and 25 of copending Application No. 10/545800. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because both describe a three-layered structure laminated to a metal substrate, said layers comprise polyester.

6. Claim 17 of 10/545800 limits the polyester of claim 13 to PET, modified PET, PBT and combinations thereof. These descriptions fit those of claim 1 of the instant application.

7. Application 10/545800 is directed to packaging for a product. Claim 11 of the instant application provides a container, which is a type of packaging.

8. Claims 18 and 25 of 10/545800 limits the metal substrate to steel, and ECCS steel respectively. These are the same as claims 12 and 13 of the instant application.

9. Claims 20 and 21 of 10/545800 describe processes that are substantially the same as claims 15 and 16.

10. Claim 23 of 10/545800 describes a layer that adheres to the metal substrate, a product contact layer and a bulk layer located between the adhesion and product contact layers. These correspond to the inner, outer and barrier layers respectively of claim 1 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa et al. (5,384,354).

13. The “and/or” phrase of claim 1 that describes the barrier layer allows the layer to comprise PET alone. That is, the line could read “a layer comprising PET, PBT or combinations thereof, as a barrier layer.” Under this reading, the barrier layer can be made of solely PET. As such, the three layers comprise the same material, PET, and can be treated as a single film layer.

14. Hasegawa et al. disclose a polyester film laminated onto a metal sheet. The film comprises (A) 99-60% by weight of PET, and (B) 1-40% PBT (col 2 ln 55-60).

Hasegawa et al. then make a can out of the sheet; implying the material does not stick to the tools used in a manner that impacts their production (col 14 ln 1-5).

15. Claims 1-4, 6-15, 18-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Asai et al. (5,780,158).

16. Asai et al. disclose a triply layered metal substrate (col 9 ln 56-59). The first layer (A) comprises ethylene terephthalate (col 2 ln 22), the second layer (B) comprises a mixture of polycarbonate (col 2 ln 25) and polyethylene and butylene terephthalate (col



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2 In 46+), and the third layer can be the same as the first layer (col 9 In 63-65). This reads on Applicants' claims 1 and 3.

17. Table 1 (col 13) lists examples and weight percentages of polymers used therein. Example 1 contains 78% by weight polyester of which 40% by weight is PBT. This implies a 31% by weight PBT in terms of the entire (B) layer ( $40\% \times 78\% = 31\%$ ). This reads on Applicants' claims 4, 6 and 18-20. Although Examples 1-8 are two-layered structures, Examples 35-43 use the same compositions to create the first two layers and then combine them with a third layer (col 20).

18. Furthermore, the glass transition temperature of (A) is 73°C. This reads on Applicants' claim 7. The (A) layer of Example 9 as having a melting point of 255°C (Table 3, col 15). Such temperatures are interpreted to be "sufficiently high" (claim 2) enough to avoid tacking, as they anticipate the ranges of claim 8.

19. Asai et al. disclose information regarding claims 9, 10 and 21-23. The thicknesses of individual layers of a triply layered product are as follows: the first layer (A) is 3μm, the second (B) is 24μm, and the third is 3μm (col 20 In 36-39). In total the lamination is then 30μm.

20. Regarding claims 11-15: Asai et al. teach the use of the laminated metal sheet as a container. The sheet can be formed by extrusion (col 1 In 13). Appropriate metals include tin-plated steel, tin-free steel and aluminum (col 10 In 5-9). Containers made from the invention may be used for beverage cans (col 1 In 14). Since Asai et al. are able to make a container from the sheet, it is implied the invention does not stick to the forming tools in a manner that impacts the production process.

***Claim Rejections - 35 USC § 103***

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 5, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai et al. (5,780,158) as applied to claim 1 above.

23. Applicants claim a PET:PBT ratio of 1:1 for the barrier layer. Applicants also claim a method for making wherein the three layers are formed into a film, which is then applied to metal substrate. The metal substrate may also already contain the inner layer.

24. Asai et al. teach a triply layered metal substrate as described previously in this Office Action. They are silent, however, with regard to the claimed ratio of PET:PBT, and the method of making.

25. While Asai et al. are silent about the specific ratio, they do provide motivation to one of ordinary skill in the art to use such a ratio. Both of the two polyesters can be mixed in an amount of 10-90% by weight (col 5 ln 45-48). At the time of the invention, it would have been obvious to one of ordinary skill in the art to use a PET/PBT ratio of 1:1 to create a laminated metal substrate that could be used to make a beverage container.

26. The claimed process of applying a film to a substrate is well known to one of ordinary skill in the art. Furthermore, Asai et al. disclose that their invention has "good



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film forming properties (such as extrusion moldability and drawability)" (col 1 ln 12-13), providing motivation to one of ordinary skill to attempt to use the claimed process.

***Claim Rejections - 35 USC § 112***

27. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

28. Claims 1, 2, 4-8, 12 and 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

29. The terms "non-tacking properties" and "tacking" in claims 1, 2, 7, 8 are relative terms which renders the claims indefinite. The term "tacking" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. "Tacking" simply implies that the layers stick to the tools, but it gives no sense of degree.

30. The term "normal operation temperatures" in claim 1 is a relative term which renders the claim indefinite. The term "normal operation temperatures" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Since the product can be used to make many objects by many different industrial-forming processes, the scope is essentially all encompassing of temperature ranges that are compatible with PET.

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31. The term "modified PET" in claim 1 renders the claim indefinite. It is unclear whether Applicants mean the layer comprises PET co-polymerized with other monomers, undergoes a post-treatment, or is otherwise differentiated from PET.

32. The term "sufficiently high" in claim 2 is a relative term which renders the claim indefinite. The term "sufficiently high" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Since this term depends on the also indefinite term "tacking," one of ordinary skill in the art would be unable to determine which temperatures are "sufficiently high" with regard to this claim.

33. The percentages in claims 4-6 and 18-20 are not defined. The claims provide no indication as to what the percentages are relative, e.g. weight or volume. Furthermore, it is unclear whether the percentages are in terms of the barrier layer composition or the coating system composition as a whole. For the purposes of this Office Action, the percentages have been interpreted to mean percent-by-weight.

34. The term "about" in claims 4 and 6 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, it is unclear how close to 60% the PBT-content of the mixture can be before it no longer falls under the scope of the claim 4.

35. The term "approximately" in claim 5 is a relative term which renders the claim indefinite. The term "approximately" is not defined by the claim, the specification does

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not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. This term is similar to "about" in claim 4, and is rejected for the same reason.

36. The term "substantially comprises" in claim 12 is a relative term which renders the claim indefinite. The term "substantially comprises" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicants are attempting to limit the inclusive term "comprising" which leads to indefinite terminology. It is unclear how much of the substrate must be one of the given metals in order to "substantially comprise" it.

### ***Conclusion***

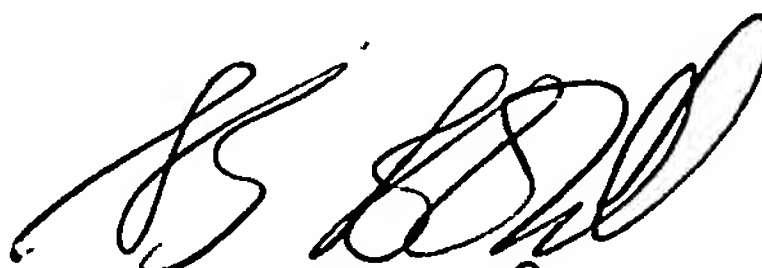
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is 571-270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman  
Examiner  
Art Unit 4174



Geraldine Blackwell  
Primary Examiner